2nd August 1932]

APPENDIX VIII.

[Vide item X—Papers laid on the Table of the House—page 99 supra.]

PUBLIC (SERVICES) DEPARTMENT.

COMMUNICATION TO THE COUNCIL.

With reference to the supplementary answer given to question No. 774, asked at the meeting of the Legislative Council held on the 28th January 1932, the following information is laid on the table:—

Legislative Council question No. 774 answered on 28th January 1932.

No Europeans were sent abroad during the triennium ending with the 31st December 1931 with State aid or scholarships for special study.

G. T. H. BRACKEN,
Chief Secretary.

To the Legislative Council Office.

APPENDIX IX.

[Vide item X—Papers laid on the Table of the House—page 99 supra.]

A SURVEY OF THE FLOODS WHICH OCCURRED IN THE GANJAM, VIZAGAPATAM AND WEST GODAVARI DISTRICTS IN OCTOBER AND NOVEMBER 1931.

Origin and course of the storm.—Following upon disturbed weather conditions, a storm developed on the morning of the 13th October 1931 about 60 miles east of Calingapatam. It crossed the coast on 14th October 1931 and caused widespread rain in the North Madras Coast. In the Ganjam district the rains were unusually heavy in the basin of the Nagavalli river and the southern and western parts of the Chicacole taluk. In the Vizagapatam district the rainfall was unprecedentedly heavy on the 13th, 14th and 15th. The rainfall recorded on the 14th was 21·50 inches at Pottanghi, 14·10 inches at Vizianagram, 13·94 inches at Chipurapalle and between 10 and 11 inches at Srungavarapukota, Bimlipatam, Bobbili and Salur. On the 31st October and the 1st November 1931, there was again heavy rainfall throughout Vizagapatam district. In the West Godavari district also there were heavy rains towards the end of October and the beginning of November. Owing to the heavy rainfall many of the rivers and drains in the three districts were in floods during the period.

In the Ganjam district, the floods spread over an area 3 miles in width and over 16 miles in length all along the Nagavalli river from Kottavalasa to Mufuzbundar.

[2nd August 1932

In Vizagapatam, nine taluks in the plains and four in the Agency were affected by the floods. Almost all the rivers and streams in this area were in full floods. On account of the heavy rain the soil round the roots of trees on the slopes of hills in Pottanghi and Padwa taluks became soaked and trees fell and started an avalanche of mud and boulders which poured down the hill sides. There seem to have been some hundreds of these landslips and the total number of villages damaged in the Vizagapatam district was 228.

In the West Godavari district the drains in the Bhimavaram, Tadepalligudem and Ellore taluks overflowed submerging the low-lying tracts of the three taluks. All the drains fall into the Colair; the floods in the Colair were the highest received since 1917.

2. *Damage—(a) Loss of life—Ganjam.*—So far as information is available, only two lives were lost and one person is reported to be missing.

Vizagapatam.—The total number of lives lost was 333. There were 214 deaths in Pottanghi and Padwa taluks alone, mostly due to landslips which overwhelmed small villages at the foot of the hills.

West Godavari.—There was no loss of human life.

(*b*) *Loss of livestock—Ganjam.*—There has been some loss but the number has not been reported.

Vizagapatam.—The number of bulls, cows, goats, sheep and pigs lost is about 6,300.

West Godavari.—Some cattle-sheds collapsed and four head of cattle were lost.

(*c*) *Loss of and damage to houses and other private property—Ganjam.*—One thousand eight hundred and sixty-six houses were ruined and the occupants were rendered homeless.

Vizagapatam.—The number of families rendered homeless was 4,679.

West Godavari.—In the Ellore taluk, 669 houses were affected in the villages round the Colair in the Ellore taluk. Of these seventeen collapsed, and the rest were vacated on account of water in them. Two hundred and fifteen houses in Bhimadole village collapsed. About 200 huts were damaged in the Colair villages of the Bhimavaram taluk.

(*d*) *Destruction and damage to cultivation—Ganjam.*—The crop on about 150 acres of land was lost. A small area has also been covered with sand or eroded.

Vizagapatam—Plains.—About 3,700 acres of cultivated land were submerged or otherwise damaged. The area covered with sand is about 200 acres. The total loss of crops is estimated at Rs. 1,50,000.

Agency.—There was not much damage to crops and fields in Pottanghi taluk. In Padwa taluk several fields cultivated with jholla were heavily inundated and in some villages many paddy fields were covered with sand and boulders which not only destroyed the crop but

2nd August 1932]

also rendered the land permanently unfit for cultivation. Roughly a tenth of the wet paddy in the taluk was spoiled. In Jeypore taluk, all the fields bordering on the Kolab river in 26 villages near Kotta were damaged or silted up. The loss in Malkangiri taluk was considerable. Ragi, cholam, chillies and paddy were completely washed away or considerably ruined in the villages affected. Much land was also silted up.

West Godavari.—The wet crops on about 22,350 acres in Bhimavaram taluk, 2,000 acres in Tadepalligudem taluk and 24,010 acres in Ellore taluk are reported to have been affected. The area silted up is insignificant.

(*e*) *Damage to Government property other than irrigation works—Ganjam.*—The wall of the District Munsif's Court, Chicacole, was damaged. The repair is estimated to cost Rs. 680.

Vizagapatam—Plains.—Considerable damage has been caused to cattle-pounds in Salur, Bobbili, Palakonda and Vizianagram taluks. One cattle-pound in Bobbili taluk was washed away. In the Anakapalle taluk, portions of the compound walls behind the Taluk office and the Sub-Registrar's office had to be pulled down to facilitate the discharge of flood water. The Police lines at Sitanagram were slightly damaged. A dozen village-sites were badly silted up in Palakonda taluk. The village records and the survey instruments of Mugguru were carried away by the Nagavalli; some of the records were, however, recovered later in Chicacole. The village records of five villages in the Vizianagram taluk were either washed away or damaged.

Agency.—In the Malkangiri taluk the rest-house at Kondakamberu washed away and the cattle-pound at Motu was damaged. Some of the Police huts at Padwa were slightly affected. Except the damage to the Itikavalasa-Jeypore road and the bridge over the Kolab river, no serious damage was done to Government buildings and roads. The road from Salur to Jeypore was repaired and made fit for through light motor traffic by about the middle of November 1931.

(*f*) *Damage to irrigation works—Ganjam.*—The estimate of damage done to minor irrigation works is Rs. 7,500.

In the Ganjam minor rivers system there were six breaches in the channels taking off from the Langulya river and the Girisola channel was slightly silted up in places. There was some damage to the tanks, canals and channels in the Rushikulya system. The total cost of repairing the damage is estimated at about Rs. 25,500.

Vizagapatam.—Seventy irrigation works including tanks were damaged. The repairs are estimated to cost Rs. 23,000.

There were abnormal floods in the Sarada river which caused eight breaches. The urgent repairs required for the irrigation of standing crops were put in hand. The bank of the Kondakerla Ava breached in four places; arrangements were made immediately to close the breaches to hold water for second crop.

[2nd August 1932

In the Parvatipur subdivision, nine river channels and ten tanks were affected though not severely. In the Nagavalli irrigation system, there were minor breaches and erosions in the channels and distributaries but these were closed and normal flow in the main channel was kept up.

The total cost of repairing the damage to Public Works Department irrigation works in the district is estimated at Rs. 69,000.

West Godavari.—A big breach was caused in the right bank of the Yanamaduru drain in Bhimavaram taluk and breaches also occurred in the bunds of six irrigation tanks in the district.

There was very little damage to major irrigation works. The cost of repairing the small damage and closing a few breaches is estimated at Rs. 5,000.

(*g*) *Damage to communications—Ganjam.*—The Great Northern Trunk Road, the Chicacole-Calingapatam road, the Srikurmam road, the Chicacole-Palakonda road and some village roads were damaged. The cost of repairs to the first four roads is estimated at Rs. 17,000. The Ganjam District Board is taking steps to repair the damage and the question of affording relief to the District Board by way of grants for this purpose is under the consideration of Government. A grant of Rs. 3,090 has also been sanctioned towards the cost of repairs to roads in the Anakapalle Municipality.

Vizagapatam—Agency.—Roads and bridges were badly affected. In the Pottanghi taluk the foot bridge at Pithaguda over the Upper Kolab, another bridge on the Turner's Ghaut Road near Pottanghi, the Public Works Department bridge at Doliamba, and both approaches to the bridge at Sunki were washed away. The Itikavalasa-Pottanghi Ghaut Road and the approaches to the Tuba and Cyaliput culverts on the Sembliguda-Padwa Road were also damaged. In the Padwa taluk, the Anantagiri Ghaut Road was badly damaged and practically every large culvert on the Padwa-Minimulur Road was washed away. The road to a length of about 200 yards on the tank-bund near Salimi and the wooden bridge over the Saptadhara river in the Malkangiri taluk were also washed away.

Vizagapatam—Plains.—The cost of repairs to the trunk and second-class roads in the district is estimated at Rs. 1·4 lakhs and 2·4 lakhs respectively. The District Board has been authorized to proceed with the repairs in anticipation of assistance from Provincial funds.

West Godavari.—The masonry drainage sluice of the C.A.D. Corporation was completely washed away. A breach, about fifty feet in length, occurred in the Great Northern Trunk Road near Bhimadole in Ellore taluk.

3. *Measures of relief—Ganjam.*—The Government sanctioned an amount of Rs. 2,000 for the relief of distress. A flood relief committee was formed under the instructions and guidance of the Collector and it was able to raise public subscriptions amounting to Rs. 4,000. The

2nd August 1932]

District Board, the Taluk Board, Chicacole, and the Chicacole Municipality contributed Rs. 1,000 each. A sum of Rs. 2,000 was distributed immediately to the deserving poor.

Vizagapatam—Agency.—Practically nothing could be done in the Agency taluks of Padwa, Pottanghi, Malkangiri and Jeypore, to mitigate the effects of the floods as they rose and passed away within 24 hours. The whole damage in Pottanghi taluk is said to have been done in 15 minutes. Some villagers who were surrounded by floods in Chalanaput village were rescued with the help of elephants lent by the Jeypore Estate. The Estate offered loans of paddy in Pottanghi and Padwa taluks. The plying of boats by a boat contractor of the Baster States considerably helped the rescue work at Motu.

Plains.—Palkonda was the only taluk where nothing could be done as the rivers came down suddenly in floods. Elsewhere everything which could be done to mitigate the effects of the floods was carried out with foresight and promptness. In Anakapalle taluk, the road near the local fund bridge was cut in three places in order to facilitate the discharge of the flood water. The people in the locality were induced to leave their houses with their chattels and live-stock in good time. Currency notes, opium, stamps and other valuables kept in the sub-treasury were secured on the record racks of the Taluk office. As already mentioned the compound walls behind the Taluk office and the Sub-Registrar's office were pulled down to ensure the free and rapid discharge of flood water. The river embankment was strengthened in several places to prevent breaches.

The Government sanctioned Rs. 10,000 towards the relief of distress in the district. A sum of about Rs. 7,500 was placed at the disposal of the subordinate officers for making small cash grants to the destitute for the purchase of food and clothing. Proposals for the grant of relief to an extent of Rs. 2,400 are under scrutiny. Relief committees were formed and grain and building material were granted freely, the latter from Government porambokes where available.

West Godavari.—The immediate relief required was the provision of shelter to the people who were rendered homeless. The Collector granted free of cost 215 palmyra trees standing on Government porambokes to the people in Bhimadole whose houses had collapsed. Free grants of trees and leaves were made to the poor people in the villages round the Colair and steps are being taken to provide water for the second-crop irrigation inasmuch of the affected area as possible.

4. *Repair of irrigation works—Ganjam.*—Six estimates for the repair of damaged tanks have been submitted to the Collector for sanction. There are enough funds to carry out the works.

Vizagapatam.—In the Salur taluk, almost all the minor breaches in the tanks have been closed by the ryots concerned, and the big breaches also have been temporarily repaired by them. In the Bobbili taluk, the villagers have temporarily closed the breaches in tanks in

[2nd August 1932

all the villages affected except Lingamvalasa. In this village the breaches in the minor irrigation tanks have been closed temporarily by the village headman at small cost.

In the Sarvasiddhi taluk, three breaches in the Babakhan channel and three in the Goparaju channel have been closed by the ryots. In the Viravilli taluk, one breach in the Lakshmipuram big tank was repaired by the estate, but the tank breached again later owing to the heavy rain on 31st October 1931.

In the Palkonda taluk, ten breaches in minor irrigation tank bunds have been closed by the ryots concerned, and in the Vizianagram taluk temporary repairs have been executed to the tanks in four villages by private individuals.

West Godavari.—In Tadepalligudem taluk, the breaches in a small minor irrigation tank of Ungutur and Vadupu tank of Tadepalli were immediately closed by the ryots. A temporary ring bund was formed by the ryots to prevent damage by the breaching of the Velagalamma tank of Kuchanpudi. The breaches in the Idula cheruvu, Ura cheruvu and Timmanna cheruvu also were closed by the ryots.

Repairs to minor irrigation works in the charge of the Revenue Department in all the three districts have either already been carried out or are in progress and will be completed shortly. It is expected that the repairs to the irrigation works in the charge of the Public Works Department will be completed before the next irrigation season.

5. *Assistance towards economic reconstruction—Ganjam.*—The Collector reports that an amount of Rs. 10,000 is likely to be required under the Land Improvement and Agriculturists' Loans Acts to give relief to cultivators whose lands have been covered with sand and who have lost their cattle. The amount will be sanctioned when needed.

Remission of revenue will be granted under the rules contained in Board's Standing Order No. 13. The amount of remission of revenue anticipated on account of flood damage is Rs. 15,000.

Vizagapatam.—Advances under the Loans Act will be granted where necessary. The possibility of forming co-operative societies for advancing loans to deserving persons for the construction of a better class of houses is being explored in the Vizianagram taluk. In the case of some of the villages affected by flood steps are being taken in consultation with the Vizianagram Estate to select new village-sites which will be less exposed to flood damage.

Remission of revenue will be granted under the provisions of Board's Standing Order No. 13. The amount to be remitted is estimated at Rs. 21,000.

West Godavari.—Remission of revenue was granted under the provisions of Board's Standing Order No. 13. The amount remitted exceeds Rs. 44,000.

2nd August 1932]

6. *Measures to prevent the recurrence of the floods or to mitigate their effects—Ganjam.*—The question of the formation of a flood bank for the Nagavalli is under correspondence between the Collector and the Executive Engineer. The Collector has been asked to obtain the opinion of the officers of the Public Works Department in regard to the necessity for a larger number of vents in the railway line between Dusi railway station and Kanugulavalasa village towards Chicacole road railway station.

Vizagapatam.—It seems that the podu cultivation in the hills of Madgole is the chief reason for the heavy floods in the Sarada river. The Collector is considering what steps should be taken to prevent the cutting of trees on the hill slopes. An estimate for providing more vents to the bridge on the road near Anakapalle is under consideration.

7. *General.*—The storm of the 13th-14th October was unprecedented. No such storm has been known in the Agency tracts within the memory of man. At the time of the deluge most of the tanks in the plains taluks of Vizagapatam were full owing to the rain in the latter part of September and early October and few could withstand the enormously increased supply. The fact that 45 Government tanks in Palkonda taluk were considerably affected in spite of expenditure regularly incurred upon maintenance shows that few tanks could have withstood the torrents of water poured into them. There is, however, no doubt that the unsatisfactory condition of many estate tanks to some extent contributed to the heaviness of the floods. So far as the Agency tracts are concerned, there appears to be nothing that can be done to mitigate the effects of such exceptional rainfall. The storm of the 13th-14th October although of great severity was fortunately not accompanied by wind and the weather became fine and dry after the storm had passed. The people who had been rendered homeless were thus spared further difficulties and fortunately there were no epidemics. The Government desire to record their appreciation of the good work done by officials and non-officials in relieving distress and repairing damage.

J. A. Thorne,
Secretary to Government.

Appendix X.

[Vide item X—Pāpers laid on the Table of the House—page 99 supra.]

A SURVEY OF THE FLOODS WHICH OCCURRED IN THE TINNEVELLY, TRICHINOPOLY, TANJORE AND SOUTH ARCOT DISTRICTS IN DECEMBER 1931.

1. *Causes and extent of the floods.*—About the end of the first week of December 1931 a storm developed some distance off the Coromandel Coast and moving towards the Peninsula caused abnormal rainfall in